

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated October 31, 2005 and the Advisory Action dated February 23, 2006, and is being filed with a Request for Continued Examination which is attached hereto. In view of the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 10-22 are under consideration in this application. Claims 10 and 20-22 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention.

The claims are being amended to correct formal errors and/or to better disclose or describe the features of the present invention as claimed. All the amendments to the specification and the claims are supported by the specification, especially the drawings. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

Claims 10-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by US Pub. No. 2002/0150311 of Lynn (hereinafter "Lynn"). This rejection has been carefully considered, but is most respectfully traversed.

The document processing system of the invention, as now recited in claim 10, comprises: an input unit for reading a storing means (e.g., text, an one-dimensional, 2D or 3D bar code, a magnetic tape, an IC chip; and an encoded print into a logo mark, photograph or some other graphic item, such as a watermark, photograph, holographic, p. 9, lines 1-9) on a *hardcopy document* (e.g., a bill or a commercial paper, p. 8, lines 1-2; p. 10, line 18; Figs. 2 & 9); document processing information, which includes a form or format information of the hardcopy document **AND** at least one hardcopy document handling procedure to be executed in connection with the hardcopy document, extracting unit for extracting encoded (*"encoded document processing information is read and*

decoded to obtain the document processing information” p. 12, lines 14-15) document processing information stored in the storing means; and document processor for executing document processing said at least one document handling procedure. The hardcopy document handling procedure (Fig. 10; pp. 16-17) includes identifying document and identifying a hardcopy document “format” by determining whether a format of the hardcopy document (i.e., “the layout information: rule mark positions, frame position, frame attributes (box for sum, box for date, etc.), and character types in frame (numerals, Chinese characters, Japanese phonetic letters, etc.)” p. 2, lines 2-7) is available in a database (“If the document form has been successfully identified, the pertinent document processing information is extracted from the document according to a document processing information dictionary. ... If the decision at step 508 reveals a failure in identifying the document form, the document form of the entered document will be unknown such that it is impossible to continue the document processing.” P. 12, line 20 to p. 13, line 5).

The document processing information “*on document forms or formats (p. 3, line 15)” including “the document form, the processing procedure, the processing method and the format of the document 201 are encoded into the two-dimensional bar code 202 and stated in a prescribed position, such as a corner of the document. In particular, the document handling procedure may be a document cutting step in conjunction with a document cutting position, a seal stamping step in conjunction with a seal stamping position, a document identification step in conjunction with a document ID, a document format identification step in conjunction with a document format ID, an encryption step in conjunction with a encryption key, or a decryption step in conjunction with a decryption key (p. 8, last paragraph).” Examples of the “hardcopy document handling procedure” includes “identifying document” and “identifying document format”, as stated in the claims, and “reading of entered items”, “posting an acknowledging seal” and “cutting the document” (p. 13 lines 7-10). In other words, “hardcopy document handling procedure” is an executable action (see 4th clause of claim 10).*

The invention is also directed to a document generating software product, as now recited in claim 20, comprising: a communication module for enabling a prospective document user wishing to have a hardcopy document made to notify a document generator of requirements regarding a desired hardcopy document layout and a desired hardcopy document handling procedure; a document layout making module for making a document layout according to the requirements from said prospective document user; a

document candidate presenting module for presenting to the prospective document user document candidates made by the document layout making module; a document selecting module for letting the prospective document user select a document candidate out of the document candidates presented by the document candidate presenting module; a document processing information determining module for determining document processing information including a form or format information of the selected document candidate **AND** the desired hardcopy document handling procedure; a storing means module for selecting a storing means, encoding the document processing information, and for storing the encoded document processing information in the storing means; and a document processor for printing on or embedding the storing means on the hardcopy document, and for executing the desired hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedure includes identifying document and identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database.

The invention is also directed to a software product for providing a hardcopy document, as recited in claim 21, comprising a module for printing on or embedding in the hardcopy document a storing means, wherein said storing means stores encoded document processing information, which includes a form or format information of the hardcopy document **AND** at least one hardcopy document handling procedure to be executed in connection with the hardcopy document, and the hardcopy document is subject to and readable by a document processing apparatus for executing said at least one hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedure includes identifying document and identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database.

The invention, as recited in claim 22, is also directed to a hardcopy document having a storing means printed thereon or embedded therein that include encoded document processing information, which includes a form or format information of the hardcopy document **AND** at least one hardcopy document handling procedure to be executed in connection with the hardcopy document, and the hardcopy document is readable by a document processing apparatus for executing said at least one hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedure includes identifying document and identifying a hardcopy

document "format" by determining whether a format of the hardcopy document is available in a database.

An object of the claimed invention is to equip a hardcopy document with a storing means in order to facilitate the handling procedure of the hardcopy document. The handling procedure includes at least identifying document format, i.e., layout, by determining whether a format of the hardcopy document is available in a database. As the document format information and processing information stored in the storing means to be transmitted with the hardcopy document (p. 3, line 11-13), just by reading the storing means, the system will know what format the document has, and therefore how to process it without accessing the image storage mechanism 130 via a communication link 120 (e.g., internet, intranet, wired or wireless).

Applicant respectfully contends that Lynn fails to teach or suggest that such an "extracting unit for extracting encoded document processing information which is stored in the storing means and which includes at least one hardcopy document handling procedure to be executed in connection with the hardcopy document"; and such a "document processor for executing document processing said at least one document handling procedure including identifying document and identifying a hardcopy document format by determining whether a format of the hardcopy document is available in a database (such a format including only a pre-determined format/form with blanks to be filled (p. 11, lines 4-5), but not any variable texts to be filled thereon) as the invention.

Lynn only extracts from the bar code or machine readable portion 304 of the label (1) a globally unique identifier and (2) additional information (e.g., "*information on physical location of the paper-based document, document disposition details, or additional index data for the document* ([0047])" to be used when storing the digital image of the paper-based document. None of the "additional information" includes identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database according to the invention.

Lynn stores the basic information about how a given paper-based document is to be processed into the "eye-legible information portion 302 [0046]", rather than into the "computer readable portion 304". This is the opposite of automating the process of determining what to perform on the hardcopy document, as the claimed invention. In particular, the computer readable bar code portion 304 of the identifier is provided for identifying document "images ([0046])" by a computer or the like, and the eye-legible information portion 302 (e.g., "KwikTag abc123/008/00367" in Fig. 3) of the identifier

“is provided as a convenience for the user and provides basic information about a paper-based document or about how a give paper-based document is to be processed” as perceived by a human user ([0046]), but not any machine or processor.

Regarding the Examiner’s assertion (p. 6, last paragraph of the outstanding Office Action) that Lynn identifies “document format” by using an electronic document image format such as PDF or TIFF, Applicant respectfully contends that Lynn only stores (rather than “identify”) document digital “images” in the image repository 226 to a main memory 220 or a cache memory in PDF or TIFF electronic “image” format ([0045]) (rather than a “hardcopy document format/layout”) to provide access to “*the electronic images of based-based documents* ([0029])”, after a paper-based document is scanned, or an electronic document is received electronically ([0031]). Lynn does not identify any hardcopy document format/layout by determining whether a format of the hardcopy document is available in a database.

At most, Lynn identifies an “image” ID of the document to treat a document digital *image* “as a whole”, i.e., (including BOTH a pre-determined format/form with blanks to be filled and any variable texts to be filled thereon), so as to retrieve the document “image” later, without identifying any format or layout of the document shown in the image. For example, Lynn scans/stores each receipt with a signature in the image repository 226 even if some of them share the same hardcopy format ([0031]). Lynn’s globally unique identifier and any other descriptive information are used to identify the “image” of each receipt, rather than a “format or layout information” of the document. In other words, Lynn only encodes document “images,” rather than any hardcopy document “format or layout information” to be digitally/electronically interpretable/identified by the document processor as the invention.

Applicant contends that Lynn does not teach or disclose each and every feature of the present invention as disclosed in at least independent claims 10 and 20-22. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

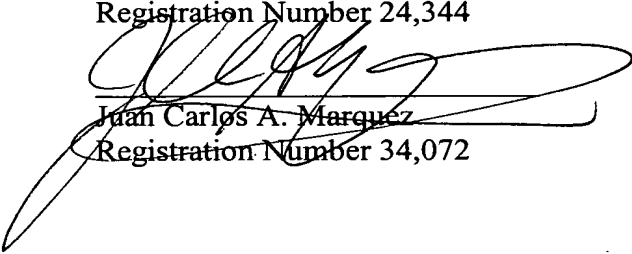
In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the

Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive
Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

March 28, 2006

SPF/JCM/JT